5.3 BEST MANAGEMENT PRACTICES

As noted in the introduction to Chapter 4 of this Basin Plan, Best Management Practices (BMPs) are:

"methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution producing activities to reduce or eliminate the introduction of pollutants into receiving waters"

(40 CFR § 103.2[m])

The State Water Resources Control Board has historically certified BMPs for use in California as part of its approval of water quality management plans prepared by other agencies, although they can be approved separately. The State Board's 1988 *Nonpoint Source Management Plan* stresses voluntary implementation of BMPs as an initial approach, with regulatory Regional Board action to require use of BMPs if necessary to protect water quality. The use of BMPs is required under stormwater NPDES permits, although the State and Regional Boards cannot specify the particular BMPs to be selected. Because of the sensitivity of Lake Tahoe and tributary waters, the State Board adopted the following mandatory requirement for BMPs in 1980:

"For construction in the Tahoe Basin allowed under this plan, the structures or facilities built must incorporate best management practices to control erosion and surface runoff."

Specific examples of BMPs given were slope stabilization, protective surface cover or vegetation, and adequate drainage facilities.

This Basin Plan continues the 1980 requirement for BMPs, and the endorsement of the Tahoe Regional Planning Agency's *Handbook of Best Management Practices,* which was revised in 1988 and certified as part of the current 208 Plan (Volume II). Most practices in the Handbook are concerned directly with erosion and stormwater control, but it also addresses other topics such as dredging and antifouling coatings on boats.

The TRPA BMP Handbook incorporates most of the BMPs related to forest practices in the USFS's statewide 208 Plan (USFS 1979) which has also been certified by the State Board. Although there is no specific BMP Handbook, Caltrans has agreed under its statewide 208 Plan and MAA to develop and use BMPs in highway work. The State Board has **not** certified the Board of Forestry's Forest Practice Rules as BMPs for timber harvest activities on private lands in the Lake Tahoe Basin. However, the Forest Practice Rules apply in the Lake Tahoe Basin, for all commercial timber harvest operations on private or State land, just as they apply to other areas of California.

The use of BMPs does **not** provide assurance of compliance with state effluent limitations. Compliance with water quality discharge standards can only be determined on a site-by-site basis (208 Plan, Vol. VI, page 123).

The Regional Board may consider approval of alternative management practices for use in specific projects on a case-by-case basis. TRPA may also approve alternative "BMPs" to meet water quality standards when special circumstances occur. Such circumstances may include but are not limited to: streets, highways, and bike trails, existence of high water tables, unusual upstream or downstream flow conditions, and the presence of unusual concentrations of pollutants. More recent handbooks prepared for other agencies (APWA Task Force 1993, USEPA 1993) summarize management practices which could be considered as alternatives to TRPA BMPs in some situations.

The BMP Handbook also specifies (page 5) that:

"the use of a practice not contained in the Handbook should be demonstrated to the satisfaction of the permit-issuing authority to be equal or better in achieving the runoff quality guidelines than the use of methods or practices presented herein. Since no one BMP is 100 percent effective, usually more than one practice must be applied to the problem. Selection of combinations of practices must be based upon analysis of specific site conditions."

One very important BMP which both the Regional Board and TRPA require to be implemented is the regional grading deadline. Grading, filling, and

clearing of vegetation which disturbs soil, and other disturbances of soil are prohibited during inclement weather and for the resulting period of time when the site is covered with snow or in a saturated, muddy or unstable condition. Special regulations and construction techniques will apply to construction activities occurring between October 15 and May 1. All project sites must be adequately winterized by October 15 as a condition for continued work on the site. Exceptions will be permitted in emergency situations where grading is necessary for reasons of public safety or erosion control (208 Plan, Vol. I, page 125).

The BMP Handbook also contains the regional stormwater runoff effluent limitations (Table 5.6-1) and specifies the 20-year, 1-hour design storm for stormwater control facilities (see the section of this Chapter on stormwater problems).

The Preface to TRPA's BMP Handbook indicates that it is meant to be used in conjunction with other portions of the 208 Plan and with TRPA's Code of Ordinances (TRPA 1987). Applicable ordinances include Chapter 25 on general installation of BMPs, Chapter 54 on standards and provisions for installation of shorezone BMPs, Chapter 64 on grading, Chapter 65 on vegetation protection during construction, Chapter 71 on timber harvest activities, Chapter 73 on livestock grazing, Chapter 78 on wildlife habitat protection, and Chapter 79 on fish habitat protection.

Monitoring data for remedial erosion and drainage control projects, and several ongoing grant-funded special studies of BMP effectiveness in the Lake Tahoe Basin, will allow better evaluation of BMPs in the future, and may indicate the need for more revisions in the current Handbook. TRPA has made a commitment to submit changes or additions to the BMP Handbook to the States and (the USEPA) for certification and approval as 208 Plan amendments, except for minor editorial revisions, updates, and additional diagrams and illustrations.

The Lahontan Regional Board requires the use of BMPs in its waste discharge permits for new Tahoe Basin projects, and may issue waste discharge permits to require the “retrofit” of BMPs to existing developed or disturbed sites which are causing water quality problems. Retrofit is also addressed in the areawide municipal stormwater NPDES permits (see the discussions of stormwater permits and “offset” programs later in this Chapter). The Regional Board prefers that detailed, design-level mitigation proposals, including proposed BMPs, be submitted as early as possible in the review process for waste discharge permits.

Under TRPA's Regional and 208 Plans, all persons who own land, and all public agencies which manage public land, are required to install and maintain BMPs. The 208 Plan requires that TRPA permits for new projects which modify structures or establish land coverage shall require application of BMPs to the area affected by the project. As part of its permitting process, TRPA also requires the preparation of a plan and schedule for retrofit of BMPs to the remainder of the parcel. The amount of retrofit required at the time of project approval is based on the cost and nature of the project (208 Plan Vol. I, pages 110-111 and 228).

BMPs for specific types of water quality problems (e.g., problems associated with livestock grazing) are discussed in greater detail in separate sections of this Chapter, below.